#### **DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 1.28

# WELDING INSPECTION REPORT

Resident Engineer: Casey, William **Report No:** WIR-028109 Address: 333 Burma Road **Date Inspected:** 30-Jul-2012

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1930 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: American Bridge/Fluor Enterprises, a JV **Location:** Job Site

**CWI Name:** See Below **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No

N/A **Electrode to specification:** Yes No **Weld Procedures Followed:** Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** 

Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG/Tower

#### **Summary of Items Observed:**

At the start of the shift this Quality Assurance Lead Inspector (QAI) traveled to the SAS project site and observed the work and the inspection performed by American Bridge/Fluor Enterprises (AB/F) Quality Control (QC) personnel. The observations and inspections were performed as noted below:

A). This Quality Assurance Lead Inspector (QALI) assigned the QA Inspectors to the following, but not limited to the work station(s) listed, to observe the welding and the QC inspection of the following:

William Clifford-Tower/Shear ESW "P" (Observation of excavation, repair welding, QC inspection and testing)

Rodney Patterson-OBG W12/W13 & W13 (VT, MPT, UT Verification).

Fritz Belford-OBG W12 Drop-In Assembly (Observation of excavations, repair welding and production welding, QC inspection and testing) and QA VT/MPT/UT verification.

Doug Frey-E12 OBG Corner Drop-In Ass'y (Observation of welding, QC inspection and testing), E13 OBG Drop-In (Observation of welding, QC inspection and testing) and QA/VT & MPT verification.

Matt Daggett-OBG W13 Drop-In, FS-13-WJ (Observation of welding, QC inspection and testing) and OBG W12 Drop-In "A" Deck Stiffeners (Observation of welding, QC inspection and testing).

NOTE: See QA daily Weld Inspection Reports (WIR) and NDE reports for additional information and details.

N/A

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Quality Assurance Lead Inspector (QALI) Summary

This QA Lead Inspector (QALI) observed the QA Inspector's Joselito Lizardo, William Clifford, Rodney Patterson and Fritz Belford and Matt Daggett monitor the work performed by the QC inspectors at random intervals and also observed the QA Inspectors verify the welding parameters, the minimum preheat and the maximum interpass temperatures for compliance with the contract specifications. The QAI's utilized a Fluke 337 clamp meter to measure the electrical welding parameters, Tempil Heat Indicators and/or a Fluke 63 IR Thermometer for verifying the preheat and interpass temperatures. At the conclusion of the shift, this QA Lead Inspector discussed and reviewed the work performed by the QAI's in regards to the various observations and the verifications of the WPS's, consumables, welding parameters, preheat and interpass temperatures. The QAI observations of the QC inspection and verification of the welding parameters performed on this date appeared to comply with the contract specifications and no issues were noted during this shift.

This QA Lead Inspector commence the review of NDT reports, tracking of welding and developing and generating weld maps for W13 drop-in panels, E12 and W12 corner drop-in assemblies. This QA Lead Inspector also reviewed RWR documents for tracking purposes.

### **Summary of Conversations:**

At the start of the shift, there were general conversations with Quality Control Lead Inspector, Bonifacio Daquinag, Jr., at the start of the shift regarding the location of welding, inspection personnel scheduled for this shift.

There were also, other pertinent conversations with QA Supervisor, William Levell, throughout the course of this shift in regards to scheduling of QA personnel, work progress and related structural steel and weld issues. There were no significant issues noted on this date. This QALI met with QA Supervisor, William Levell and Structural Material Representative (SMR) Bahjat Dagher and Bob Kick, ABF Operations Manager, Eric Blue, ABF Engineer, James Bowers, ABF Welding Quality Control Manager (WQCM) and QC Lead Inspector Bonifacio Daquinag, Jr. to review and discuss the spreadsheet document generated by ABF and the pertinent information entered.

Also, this QALI was informed by QA inspector, Rodney Patterson, regarding the removal of the lifting lug ass'y located at OBG E13 longitudinal diaphragm web (Panel Point 122.5) that there were linear indications noted by QC which measured from 2 mm to 7 mm deep. At this time ABF welders commence the welding of the base metal indications prior to the Engineer's approval. This web plate is a Seismic Performance Critical Member (SPCM). At the conclusion of the review and discussion of this issue this QALI informed Mr. Patterson to generate and submit an Incident Report (IR).

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy 510-385-5910, who represents the Office of Structural Materials for your project.

Inspected By: Reyes, Danny Quality Assurance Inspector	Inspector
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**Reviewed By:** Levell,Bill QA Reviewer